ExEP Yield Modeling for HabEx with SAG-13 Power Law Distribution

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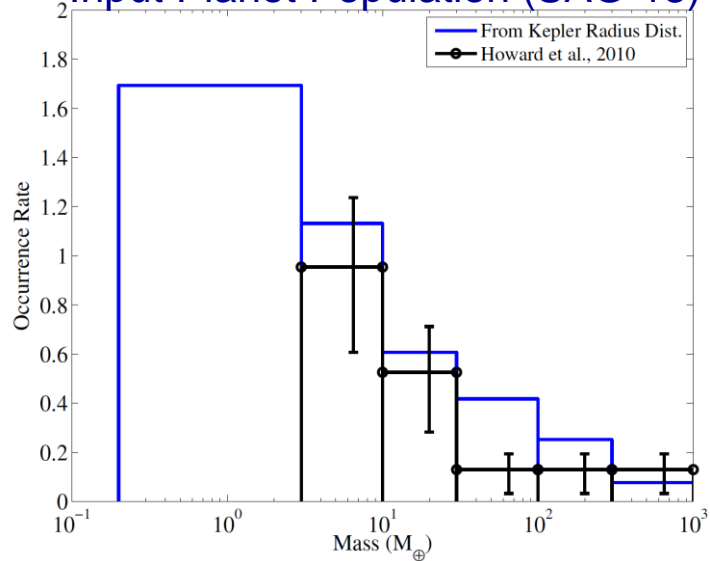
EXOSIMS by D. Savransky, C. Delacroix (Cornell) with contributions by
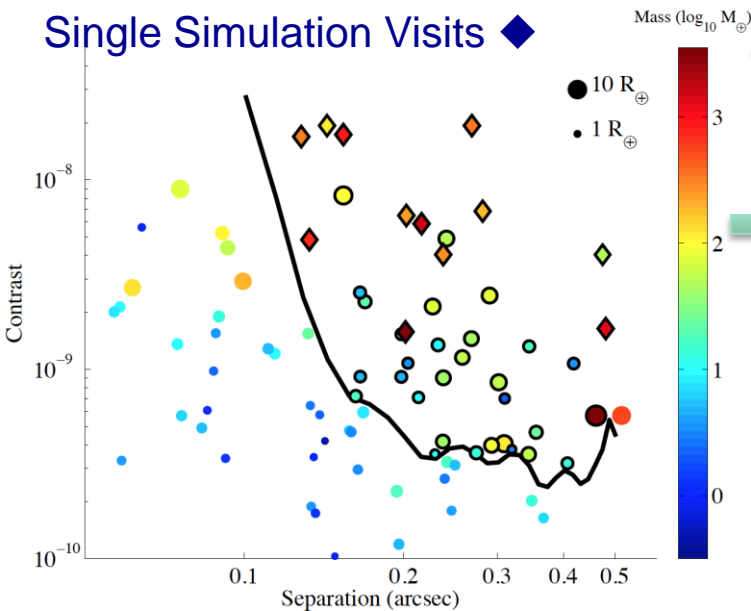Michael Turmon (JPL), Walker Dula (JPL), Rahul Patel (IPAC)
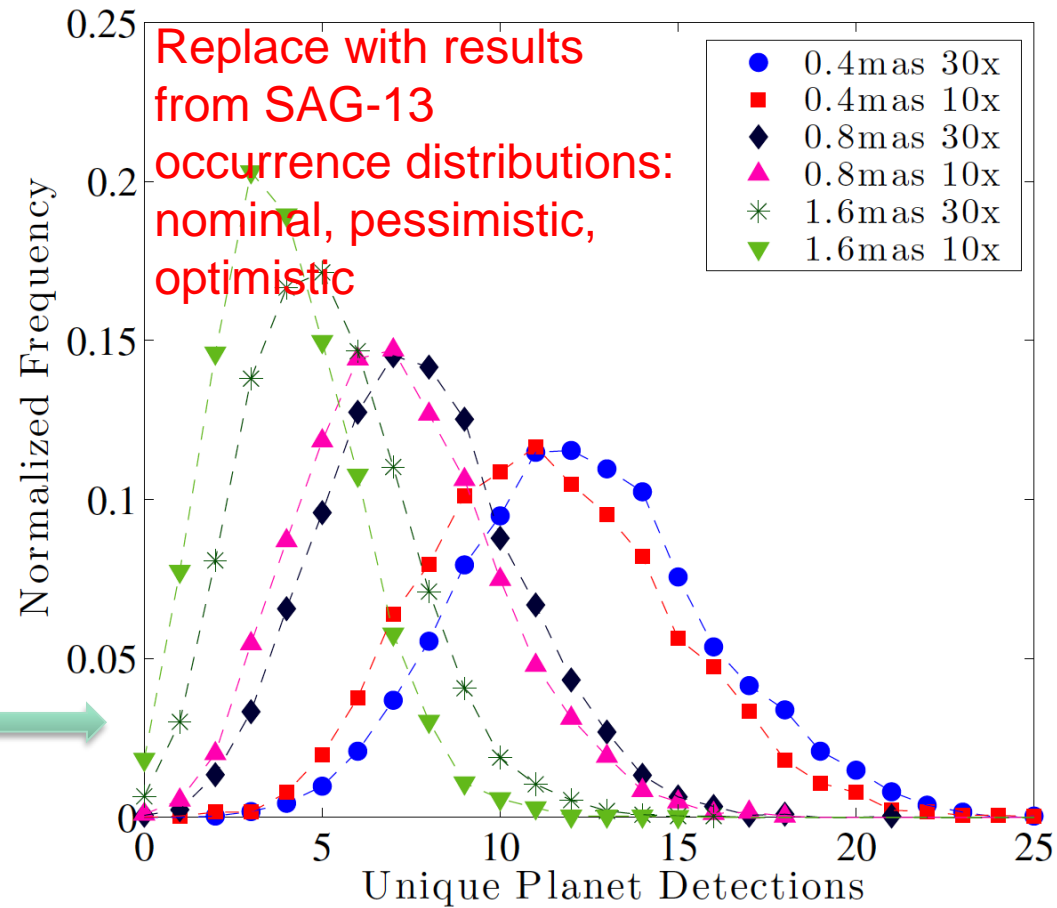
June 16, 2017

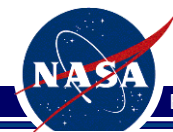# HabEx Yield Results by EXOSIMS

Input Planet Population (SAG-13)

Simulation Ensemble Yield PDFs

Replace with results from SAG-13 occurrence distributions: nominal, pessimistic, optimistic

Single Simulation Visits ◆

Savransky and Garret, 2015

2

The power of ensemble statistics

False Alarm Probability varies with separation

Mission Failure Modes

Instrument Bias

Mission Execution

Savransky and Garret, 2015